

Application No. 10/650,359
Amendment Dated December 13, 2004
Reply to Office Action dated August 11, 2004

Remarks

Claims 1-10 are pending.

Claims 1-10 stand rejected.

Claims 1, 3-6 and 8-10 are amended.

Claims 2 and 7 have been cancelled without prejudice.

Claims 1-10 are submitted herein for review.

No new matter has been added.

In paragraph 1 of the Office Action, the Examiner has objected to the specification for containing overly close translations from a foreign patent document. Applicant has reviewed the specification and made several minor amendments to clarify the meaning of certain passages in the specification, including those specifically pointed out by the Examiner. As such, Applicant respectfully requests that the objection to the specification be withdrawn.

In paragraph 3 of the Office Action, the Examiner has objected to the abstract for containing overly formal language. Applicant has amended the abstract accordingly and respectfully requests that this objection be withdrawn.

In paragraph 5 of the Office Action, the Examiner has rejected claims 1-10 under 35 U.S.C. § 102(b) as being anticipated by Head (U.S. Patent No. 6,323,420).

Applicant respectfully disagrees with the Examiner's contentions and submits the following remarks in response.

The present invention as claimed in claim 1 is directed to a method for manufacturing an electrical cable system having an electrical cable containing a conductor core, and for installing the electrical cable system over a longitudinally expandable-contractible element. The method includes disposing a secondary element over the electrical cable, where the secondary element is a radially expandable hose, so as to give the electrical cable substantially attached undulations thereby forming an additional length. The additional length is formed by stranding the radially expandable hose around the electrical cable in a helical formation, where the electrical cable and the radially expandable hose are both twisted relative to one another.

The method also includes installing, by clamping at least at two points, the electrical cable system to the longitudinally expandable-contractible element and handling the secondary element after the clamping so as to release the attachment of the undulations, thereby converting the additional length into a free to be used excess length.

In this configuration the present invention provides a method for creating an electrical cable system where the electrical cable is twisted around a pressurized hose, spiraling throughout the length of the system the electrical cable and the pressurized hose are wrapped around one another, their actual length is longer than the distance spanned by the system per unit of length.

Once the cable is attached to the longitudinally expandable-contractible element the pressurized hose can be depressurized, allowing the helical nature to deform, causing the electrical cable to move towards the center of the cable system and to maintain additional length which is then free to accommodate the longitudinal expansion and/contraction of the attached element.

The cited prior art, namely Head, teaches a sub sea coiled tubing system. As illustrated in Fig. 1, a carrier tube 40 runs directly down the center of the cable arrangement. Power cables

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31, 32, 33, 131, 132 and 133 along with structural cables 30 and 130 are wrapped around the center carrier tube 40. These items are then drawn into a coiled tube 20.

Column 5, lines 9-22, which relate to Fig. 5, state:

“Referring to FIG. 5, when the carrier tube 40 is in place, the nose of a swaging die 26 is introduced into the bore of the carrier tube 40. The swaging die 26 has a diameter, at its largest, which is larger than the inner bore of carrier tube 40. The swaging die is attached to a rope (not shown here) which is threaded through the carrier tube prior to the introduction of the swaging die. The swaging die 26 is then pulled through the carrier tube 40, causing the tube 40 to plastically deform, *increasing in diameter*. The die may also be hydraulically displaced along the carrier tube 40.

The diameter of the swaging die 26 is such that, after swaging, the largest total diameter of the cables and the carrier tube is equal to the internal diameter of the coiled tubing.” (emphasis added)

It is clear from this description, that the centrality of the carrier tube 40 in Head is a principal feature so that when the swagging die is drawn through, tube 40 forces the power cables outwards towards the inner diameter of the coiled tube 20.

Applicant respectfully submits that the cited prior art does not teach or suggest all of the elements of the present invention as claimed. For example, there is no teaching or suggestion for a step of disposing a radially expandable hose over the electrical cable, so as to give said electrical cable substantially attached undulations thereby forming an additional length, *where the additional length is formed by stranding the radially expandable hose around the electrical cable in a helical formation, where the electrical cable and the radially expandable hose are both twisted relative to one another*. Contrary to the carrier tube 40 from Head, that is required to run centrally the length of the coiled tubing, the radially expandable hose and the electrical cable of the present invention are both twisted relative to one another.

Furthermore, the cited prior art does not teach or suggest handling the secondary element

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after the clamping *so as to release the attachment of the undulations* thereby converting the additional length into a free to be used excess length. The handling of the secondary element (expandable hose) in the present invention *releases* the attachment of the undulations, in sharp contrast to Head where the swagging die increases the size of the carrier tube and pronounces the undulations further outwards towards the inside diameter of the coiled tube.

For at least these reasons, Applicant submits that the cited prior art does not teach all of the elements of the claimed invention as claimed in independent claim 1, and respectfully requests that this rejection be withdrawn. As claims 3 and 4 depend therefrom, Applicant requests that the rejection to these claims be withdrawn for the same reasons.

Applicant notes that independent claim 5 includes the limitations of the additional length being formed by *stranding the radially expandable hose around the electrical cable in a helical formation, where the electrical cable and the radially expandable hose are both twisted relative to one another*; and the limitation of the secondary element is *handleable in order to release the attachment of the undulations after the clamping*, thereby converting the additional length in a free to be used excess length.

For the same reasons outlined above in support of independent claim 1, Applicant submits that the cited prior art does not teach or suggest all of the elements of independent claim 5, and respectfully requests that the rejection of this claim be withdrawn. Likewise, as claims 6 and 8-10 depend therefrom, Applicant requests that the rejection to these claims be withdrawn for the same reasons.

In view of the forgoing, Applicant respectfully submit that pending claims 1, 3-6 and 8-10 are in condition for allowance, the earliest possible notice of which is earnestly solicited. If

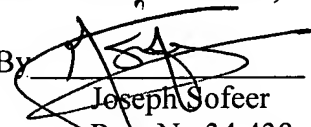
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the Examiner feels that an interview would facilitate the prosecution of this Application she is invited to contact the undersigned at the number listed below.

Respectfully submitted,

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